

INTERIM MEASURES WORK PLAN

For
McDonnell Douglas Aerospace
U.S. EPA I.D. No.: MOD000818963
Tract I Facility
Hazelwood, Missouri

Prepared for:

McDonnell Douglas Aerospace
Environmental & Hazardous Material Services
8901 Airport Road
Building 110, Level 1, MC1111099
St. Louis, Missouri 63134

Prepared by:

Heritage Environmental Services, Inc.
Chicago Service Center
1319 Marquette Drive
Romeoville, Illinois 60446

April 15, 1997



Heritage Environmental Services, Inc.



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MCDONNELL DOUGLAS

McDonnell Douglas Aerospace

April 17, 1997
464C-4037-JWH

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APR 18 1997

RCRA PERMITTING & COMPLIANCE BRANCH
(RPCB)

Ms. JoAnn Heiman, Chief
RCRA Permitting & Compliance Branch
U.S. Environmental Protection Agency Region VII
Air, RCRA and Toxics Division
726 Minnesota Avenue
Kansas City, Kansas 66101

Enclosure: (1) Interim Measures Work Plan (2)

Dear Ms. Heiman:

Enclosure (1) is required by the Corrective Action Conditions of the Hazardous Waste Management Facility Permit, # MOD 000 818 963, dated March 5, 1997. Three copies of the plan have been submitted to the Missouri Department of Natural Resources as required under the terms of the permit.

Please contact me should you need additional information.

Sincerely,



Joseph W. Haake, Group Manager
Waste Management
Environmental & Hazardous Materials Services
Dept. 464C/Bldg. 110/MC S111-1099

JWH:kcb



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1.0 BACKGROUND

A Resource Conservation and Recovery Act (RCRA), Facility Assessment (RFA), was performed at McDonnell Douglas Aerospace (MDA), Tract I Facility (U.S. EPA I.D. No. MOD000818963) in Hazelwood, Missouri (Site). The RFA Preliminary Review (PR), and the Visual Site Inspection (VSI), were performed by Metcalf & Eddy under the Technical Enforcement Support X Contract for the United States Environmental Protection Agency (USEPA) and the Missouri Department of Natural Resources (MDNR). Science Applications International Corporation (SAIC) completed the RFA site activities which included the collection of soil and groundwater samples at eight (8) Solid Waste Management Units (SWMU). The location of MDA Tract I Facility is shown in Figure 1, Appendix A.

On August 14, 1995, subsequent to the completion of the RFA activities performed at the site, SAIC submitted a RFA Report for the site to USEPA Region VII and MDNR; collectively referred to herein as the "Agency".

Based upon the SAIC report, the Agency included in MDA's permit renewal, the implementation of Interim Measures at four (4) of the SWMU's identified at the Tract I Facility. These SWMU's were identified as SWMU # 10 (Current Waste Oil Tank located at Building 5), SWMU # 22 (Paint Booth Satellite Accumulation Drum Area located at Building 2), SWMU #26 (Former Less-Than-90-Day Storage Area located near Building 40), and SWMU #28 (an Electrical Power Transformer located near Building 6).

Based on the Agency's requirement, MDA requested Heritage to prepare an Interim Measures Work Plan, for the above referenced, SWMU's in order to minimize and mitigate the potential for contamination of the environment at these SWMU's. The proposed stabilizing corrective actions identified herein include the cleaning, repairing and sealing of grade surfaces as appropriate, and improvements to secondary containment systems.



2.0 INTERIM MEASURES

2.1 SWMU # 10 (Current Waste Oil Tank located at Building 5)

SWMU # 10 consists of a 375 gallon capacity, steel constructed, above ground storage tank (AST) set within an asphalt constructed secondary containment structure.

The AST is utilized to containerize oil which has been separated from condensate from an oil-lubricated steam-driven air compressor located within Building 5. Recovered oil is separated from steam condensate by utilization of an oil-water separator and automatically transferred to the AST. When the AST accumulates its process capacity, the recovered oil is manually transferred to a 1,000 gallon mobile tank and transported to a permitted hazardous waste storage area (SWMU #8 - Scrap Dock Shelter), where it is managed under an existing operation, maintenance and monitoring program for SWMU #8. SWMU #10 is located southeast of Building 5 as shown in Figure 2, Appendix A.

The objectives of the Interim Measures for SWMU #10 are to reduce the potential for release from the AST to air, surface waters, soils, soil gas, and groundwater at this SWMU. This objective will be achieved by replacing the current asphalt constructed containment structure with a pre-constructed steel containment structure, capacity to hold 110% the capacity of the AST or install a new replacement double wall tank.

Final design and construction of the secondary containment structure will commence within 30 days following the Agency's approval of the Interim Measures Work Plan. The secondary containment structure or new replacement tank will be constructed off-site and delivered to the site as a completed, and ready to install, structure. The pre-constructed steel containment structure will have approximate width-length-height dimensions of 6 ft. by 7.5 ft. by 2.5 ft. for a total holding capacity of 410 gallons. Typical design criteria for the secondary containment structure are provided in Appendix B.





As a result of the replacement of the secondary containment structure, or new tank, modification of the existing Operation, Maintenance, and Monitoring Program requirements for this SWMU will not be necessary.

The replacement of the secondary containment structure will involve the following general activities:

- ▶ Temporary take the steam driven air compressor out of service .
- ▶ Disconnection of the oil-water separator/AST piping and draining any residual oil contained in this piping to the AST.
- ▶ Remove the remaining piping connected to the AST
- ▶ Remove the residual oil from the AST.
- ▶ Remove the AST from the secondary containment system to a temporary decontamination pad.
- ▶ Clean the AST exterior.
- ▶ Remove the existing asphalt secondary containment berm.
- ▶ Clean the asphalt surface underlying the former AST location, using a hydraulic scabbler.
- ▶ Seal any existing visible cracks in the asphalt surface utilizing an asphalt sealant.
- ▶ Seal coating of the asphalt surface in the area of the secondary containment structure.
- ▶ Allow seal coat to set for 24 hours prior to placement of secondary containment structure.
- ▶ Place AST inside the new secondary containment structure.
- ▶ Reattach AST piping.
- ▶ Reconnect the oil-water separator and AST piping.

In the course of conducting these Interim Measures at SWMU #10, waste materials will be generated. The management of these waste materials are summarized as follows.





Waste Waters

Decontamination and cleaning solutions (detergents) utilized in the cleaning of the AST (exterior), and asphalt surface will be containerized at the site by utilization of vacuum and suction hose. Depending on the quantity of liquids anticipated, a drum vacuum (55 gallon capacity) or skid vacuum (500 gallon capacity) will be utilized to collect and contain decon and rinsate waters. Collected decon-rinsate waters will be transported to MDA's onsite oil water separator managed under the existing operation, maintenance, and monitoring program for the oil water separator.

Asphalt Debris

Asphalt debris, resulting from the removal of the existing asphalt secondary containment berm, will be containerized into portable self-dumping hoppers or steel 55 gallon drums and transported to an onsite construction debris management area. This material will be incorporated into other construction debris generated at the site and managed in accordance with the existing operation, maintenance, and monitoring program for the construction debris management area.

Reclaimed Compressor Oil

Reclaimed compressor oil, accumulated in the temporary holding tank, will be transferred to the AST and managed in accordance with the existing operation, maintenance and monitoring program for SWMU #10.

Expendable Personnel Protective Equipment

Expendable Personnel Protective Equipment (PPE), that is used, will be containerized into 55 gallon plastic bags, sealed, and incorporated into an existing onsite management area for contaminated PPE materials. This material will be incorporated into other





contaminated PPE waste generated at the site and managed in accordance with the operation, maintenance, and monitoring program for this area.

2.2 SWMU # 22 (Paint Booth Satellite Accumulation Drum Area, Building 2)

SWMU # 22, located outside the northwest corner of Building #2, is utilized for satellite accumulation of wastes from painting operations conducted in the Building #2 paint booth. One drum of paint waste is generated at this unit every 10 to 14 days. Full drums are transported by fork truck to the less-than-90-day waste storage area located outside of Building #2 (SWMU #24). The locations of SWMU #22 and SWMU #24 are shown in Figure 3, Appendix A.

The objectives of the Interim Measures for SWMU #22 are to clean existing surface cracks as necessary to prepare the cracks for sealing and seal the cracks utilizing an appropriate concrete or asphalt crack sealant at the SWMU. The Interim Measure consists of scarifying the existing asphalt and concrete surface, utilizing high pressure water to remove any existing paint residues, cleaning the existing surface cracks as necessary to prepare the cracks for sealing, sealing the cracks utilizing an appropriate asphalt or concrete crack sealant, applying a seal coat to the asphalt surface, and identifying the Satellite Accumulation Drum Area perimeter on the asphalt and concrete surface. In addition, wood timbers will be removed from a suspected former weight scale pit and the pit interior will be cleaned, backfilled, and completed with a concrete slab to surface grade.

Decontamination and sealing of the asphalt and concrete surface at SWMU #22 will commence within 30 days following the Agency's approval of the Interim Measures Work Plan. The area proposed for decontamination and resealing is estimated at 625 square feet (25 ft. by 25 ft.) although the final area to be perimeterized for the Paint Booth Satellite Accumulation Drum Area is estimated at 100 square feet (10 ft. by 10 ft.). The larger





area covered by the surface sealing activity is considered a satisfactory interim measure to contain a potential release of paint solids from the Satellite Accumulation Drum Area.

As a result of the repairs to existing cracks in concrete or asphalt surfaces in this area, modification of the existing Operation, Maintenance, and Monitoring Program requirements for the Satellite Accumulation Drum Area will not be necessary.

The repairs to the Satellite Accumulation Drum Area will involve the following activities.

- ▶ Removal of Satellite Accumulation Drums to the less-than-90-day waste storage area at SWMU #24.
- ▶ Scabbler paint residue from concrete and asphalt surface.
- ▶ The wood timbers will be removed from the suspected former weight scale pit and the pit interior will be cleaned, backfilled, and concreted to surface grade.
- ▶ Clean out and prepare surface cracks for sealant.
- ▶ Seal surface cracks.
- ▶ Seal coat asphalt surface.
- ▶ Allow seal coat to set for 24 hours.
- ▶ Identify Satellite Accumulation Drum Area perimeter with high impact paint.
- ▶ Return Satellite Accumulation Drum Area to service.

In the course of conducting these Interim Measures at SWMU #22 waste materials will be generated. The management of these waste materials are summarized as follows.

Waste Waters

Decontamination and cleaning solutions (detergents) utilized in the cleaning of the AST (exterior), and asphalt surface will be containerized at the site by utilization of vacuum and suction hose. Depending on the quantity of liquids anticipated a drum vacuum (55 gallon capacity) or skid vacuum (500 gallon capacity) will be utilized to collect and contain decon and rinsate waters. Collected decon-rinsate waters will be transported to





MDA's onsite water treatment plant and managed in accordance with the operation, maintenance, and monitoring program for this area.

Timber Debris

Timber debris, resulting from the removal of the timber from the suspected weight scale cavity, will be containerized into portable self-dumping hoppers or steel 55 gallon drums and transported to an on-site construction debris management area. This material will be incorporated into other construction debris generated at the site and managed in accordance with the operation, maintenance, and monitoring program for this area.

Expendable Personnel Protective Equipment

Expendable Personnel Protective Equipment (PPE), that is used, will be containerized into 55 gallon plastic bags, sealed, and incorporated into an existing onsite management area for contaminated PPE materials. This material will be incorporated into other contaminated PPE waste generated at the site and managed in accordance with the operation, maintenance, and monitoring program for this area.

2.3 Former SWMU #26 (Less-Than-90-Day Storage Area, Building 40)

Former SWMU # 26 was a Less-Than-90-Day Storage Area for drummed waste solvents, paints, and oils transported from Satellite Accumulation Drum Areas in Building #40. This SWMU was formerly located outside of Building #40 and consisted of a prefabricated steel constructed building closed on three sides, with a corrugated steel roof, and a raised, steel grated, floor and integral secondary containment structure (Storage Building). The Storage Building is still in service and is currently utilized at SWMU #23. The SAIC RFA Report identified the Storage Building's spill containment system as intact, there was no observable evidence of staining or corrosion, and the building





appeared to be in good condition. The location of the former SWMU #26 is shown in Figure 4, Appendix A.

Currently, MDA utilizes this area for the storage of tow motors and trailers which are utilized to move various pieces of equipment and tools at the facility. An additional prefabricated steel constructed building, similar in construction design to the Storage Building, with the exception that the new building is closed on all sides, has been placed at this location. This building is utilized to house virgin products associated with equipment maintenance (hydraulic oil and filtration unit).

The necessity for implementation of Interim Measures at the former location of SWMU #26 are not clearly established in the SAIC RFA Report. Specifically, the SAIC RFA Report indicated a potential for a past release, or releases, based on observations made during the VSI of staining and cracking of the concrete surface in this area, the SAIC RFA Report subsequently states, in reference to a potential for release to air from the former SWMU #26 Storage Building, that there is no history or evidence that spills from this unit occurred. Therefore, the objectives of the Interim Measures proposed for the area of the former SWMU #26 are to comply with the request of the Agency to seal the cracks found within the concrete of the Former Less-Than-90-Day Storage Area located near Building #40. The specific area in which this work will be performed is described below.

The Interim Measure is to clean existing surface cracks as necessary to prepare the cracks for sealing and seal the cracks utilizing an appropriate concrete crack sealant.

Cleaning and sealing of the concrete cracks at Former SWMU #26 will commence within 30 days following the Agency's approval of the Interim Measures Work Plan. The area proposed for repair includes the concrete surface bounded to the east by the west exterior wall of Building #40 as projected north and south to the perimeter chain link fence which marks the perimeter of the current equipment storage area and to the north, west and





south by the chain link fence which marks the perimeter of the current equipment storage area, excluding the area underlying the existing prefabricated steel constructed building which currently houses the virgin products associated with equipment maintenance (hydraulic oil and filtration unit).

Modification of the existing Operation, Maintenance, and Monitoring Program requirements for the Equipment Storage Area, Former area of SWMU #26, are not considered necessary.

The repairs to the Equipment Storage Area, Former SWMU #26 will involve the following activities.

- ▶ Relocation of storage equipment as necessary to gain access to existing cracks in the concrete surface.
- ▶ Clean out and prepare surface cracks for sealant.
- ▶ Seal surface cracks.

In the course of conducting these Interim Measures at SWMU #10 waste materials will be generated. The management of these waste materials are summarized as follows.

Waste Waters

Waste Water generated as a result of the cleaning of the concrete cracks will be containerized at the site by utilization of vacuum and suction hose. Depending on the quantity of liquids anticipated a drum vacuum (55 gallon capacity) or skid vacuum (500 gallon capacity) will be utilized to collect and contain waste waters. Collected waste waters will be transported to MDA's onsite water treatment plant and managed in accordance with the operation, maintenance, and monitoring program for this area.





Expendable Personnel Protective Equipment

Expendable Personnel Protective Equipment (PPE), that is used, will be containerized into 55 gallon plastic bags, sealed, and incorporated into an existing onsite management area for contaminated PPE materials. This material will be incorporated into other contaminated PPE waste generated at the site and managed in accordance with the operation, maintenance, and monitoring program for this area.

2.4 SWMU #28 (Leaking Power Transformer, Building 6)

SWMU #28 is a power transformer station located outside of the northeast corner of Building #6. The power transformer station is suspected to be composed of two interconnected units; a Power Transformer and a Switching Station (Electrical Power System). The electrical power system is currently active. An emergency backup electrical power system is not currently available for this station.

Laboratory results from a sample of the transformer oil, collected on December 7, 1982, indicated the presence of PCB's (Aroclor 1260), at a concentration of 44.0 (SAIC RFA Report; text of the report did not identify the dimensional units of the reported value). Observations made during the VSI (October 22, 1993), indicated the transformer system exhibited indications of a leak. The location for SWMU #28 is shown in Figure 2, Appendix A.

The objectives of Interim Measures proposed for SWMU #28 would be to reduce the potential for a release from the Electrical Power System to air, surface waters, soils, soil gas, and groundwater at the SWMU. Interim Measures for this SWMU would seek to eliminate the source of the release by one of two alternative courses of action. The primary course of action is to clean and remove the Electrical Power System. The alternative course of action is to clean and repair the Electrical Power Station. The Interim Measures for both alternatives would include decontamination of visually





impacted surfaces of the electrical power system units, concrete anchor pad surfaces, and removal of PCB impacted surface gravel for offsite management.

In addition, should an asphalt surface be encountered underlaying the surface gravel, the visually impacted asphalt surface will be cleaned. Should no asphalt surface be encountered underlaying the surface gravel, the visually impacted soils will be excavated and removed for disposal and clean soil will be placed in the excavation for backfill.

Modification of the existing Operation, Maintenance and Monitoring Program requirements for this SWMU would include the elimination of the requirements under the Primary course of action (Removal), and no modifications would be considered necessary under the secondary course of action (Repair).

In the course of conducting these Interim Measures at SWMU #28 waste materials will be generated. The management of these waste materials are as follows.

Waste Waters

Waste Waters generated as a result of equipment decontamination activities will be containerized, at the SWMU area, in a steel 55 gallon drum and transported to a PCB Solid Waste Management Area at the site. This material will be incorporated with other PCB contaminated waste generated at the Tract I Facility and managed in accordance with existing operation, maintenance, and monitoring program requirements for these materials.

Expendable Personnel Protective Equipment

Expendable Personnel Protective Equipment (PPE) that is utilized, will be containerized into a steel 55 drum and transported to a PCB Solid Waste Management Area at the site. This material will be incorporated with other PCB contaminated waste generated at the





Tract I Facility and managed in accordance with the existing operation, maintenance, and monitoring program requirements for these materials.

3.0 INTERIM MEASURES HEALTH AND SAFETY PLAN

A Health and Safety Plan (HASP), by which the various activities presented in the Interim Measures Work Plan will be prepared. The HASP will include and addresses:

- ▶ Facility description including availability of resources such as roads, water supply, electricity and telephone service;
- ▶ Description of the known hazards and evaluation of the risks associated with each activity conducted;
- ▶ A listing of key personnel and alternates responsible for site safety response operations, and for protection of public health;
- ▶ Delineation of work areas;
- ▶ Description of levels of protection to be worn by personnel in work areas;
- ▶ Establishment of procedures to control site access;
- ▶ Description of decontamination procedure for personnel and equipment;
- ▶ Establishment of site emergency procedures;
- ▶ Emergency medical care for injuries and toxicological problems;
- ▶ Description of requirements for an environmental surveillance program;
- ▶ Routine and special training required for responders; and
- ▶ Establishment of procedures for protecting workers from weather related problems.

The Health and Safety Plan will be prepared to be consistent with:

- ▶ NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
- ▶ EPA Order 1440.1 - Respiratory Protection;
- ▶ EPA Order 1440.3 - Health and Safety Requirements for Employees Engaged in Field Activities;
- ▶ Facility Contingency Plan;
- ▶ EPA Standard Operating Safety Guide (1984);





- ▶ OSHA regulations particularly in 29 CFR 1910 and 1926;
- ▶ State and local regulations; and
- ▶ Other EPA guidance as provided.

4.0 INTERIM MEASURES WORK PLAN SCHEDULE

A proposed schedule for the Interim Measures Work Plan is included in Attachment C. The proposed schedule provides start up and completion dates for the following project tasks.

INTERIM MEASURES WORK PLAN SCHEDULE Tract 1 FACILITY McDonnell Douglas Aerospace	
ID	Task Name
1	Submit Interim Measures Work Plan
2	Agency Review of Interim Measures Work Plan
3	Implement Interim Measures at SWMU's #10, #22, #26, and #28
4	Prepare Interim Measures Report
5	Submit Interim Measures Report to Agency

5.0 INTERIM MEASURES REPORT

Within 30 days following completion of the Interim Measure Activities for SWMU #10, SWMU #22, SWMU #26, and SWMU #28 an Interim Measures Report will be submitted to the Agency. The report will provide a summary of stabilization activities performed at the facility, and evaluation of the effectiveness of the Interim Measures, a discussion of how the Interim Measures are mitigating a potential threat to public health and the environment, the compatibility of the Interim Measures to anticipated long-term measures for the facility, a description of any long-term operation, maintenance, and monitoring program associated with the Interim Measures in place, and as appropriate, justification for termination of Interim Measures.





APPENDIX A

FIGURES



Building No.	Description
20, 30A	Electrical Substation & Pump House
22	Garage Building
23	Cooling Tower
24	Pedestrian Underpass (East)
25, 25A	Wind Tunnel (Low Speed) Unit Substation
25B	V/STOL Test Facility
26	Pump House (Fire Protection)
26A	Storage Tank (Fire Protection)
27	Manufacturing Building
28	Fuel System Laboratory
29	Fabrication Building
29A	Composites Manufacturing

Building No.	Description
30, 30A	Pedestrian Underpass (West)
32	Office Building
33	Office Building
34	Office Building
39	Chemical Storage Building
211, 214	Guard Shelters
215	Bus Shelter (McDonnell Blvd.)
216	Die Storage Rack
220	Composites Manufacturing
220A	Unit Substation
221	Office and Engineering Laboratories

1	Administrative Offices
2	Manufacturing Building
3	Office Annex Building
4	Office Building
5	Boiler House
5A, B	Sprinkler System Storage Tank
6	Maintenance Building
7	Gate House
19	Compass Rose
40	Ramp Service Building
41	Chemical Storage Building
42	Production Hangar
43	Ramp Utilities Building
43A, B, C, D	Storage Tanks (Ramp H ₂ O & Air Serv.)
44	Pump House (Fire Protection)
45	Production Hangar
45A, B, F, G	Ramp Shelters
45C, D, E, L	Hush Houses
45J	Radar Cooling Equipment Building
45K	Fuel System Work Facility
45L	Hush House #4
46	Fuel-Filter Building
48	Ramp Paint Booths
49, 49A	Water Check Facility
51	Manufacturing Building
52	Manufacturing Building
53	Boiler House
55	Service Building
55A	Storage Building
56	Boiler House

Tract I
North

Tract I
South

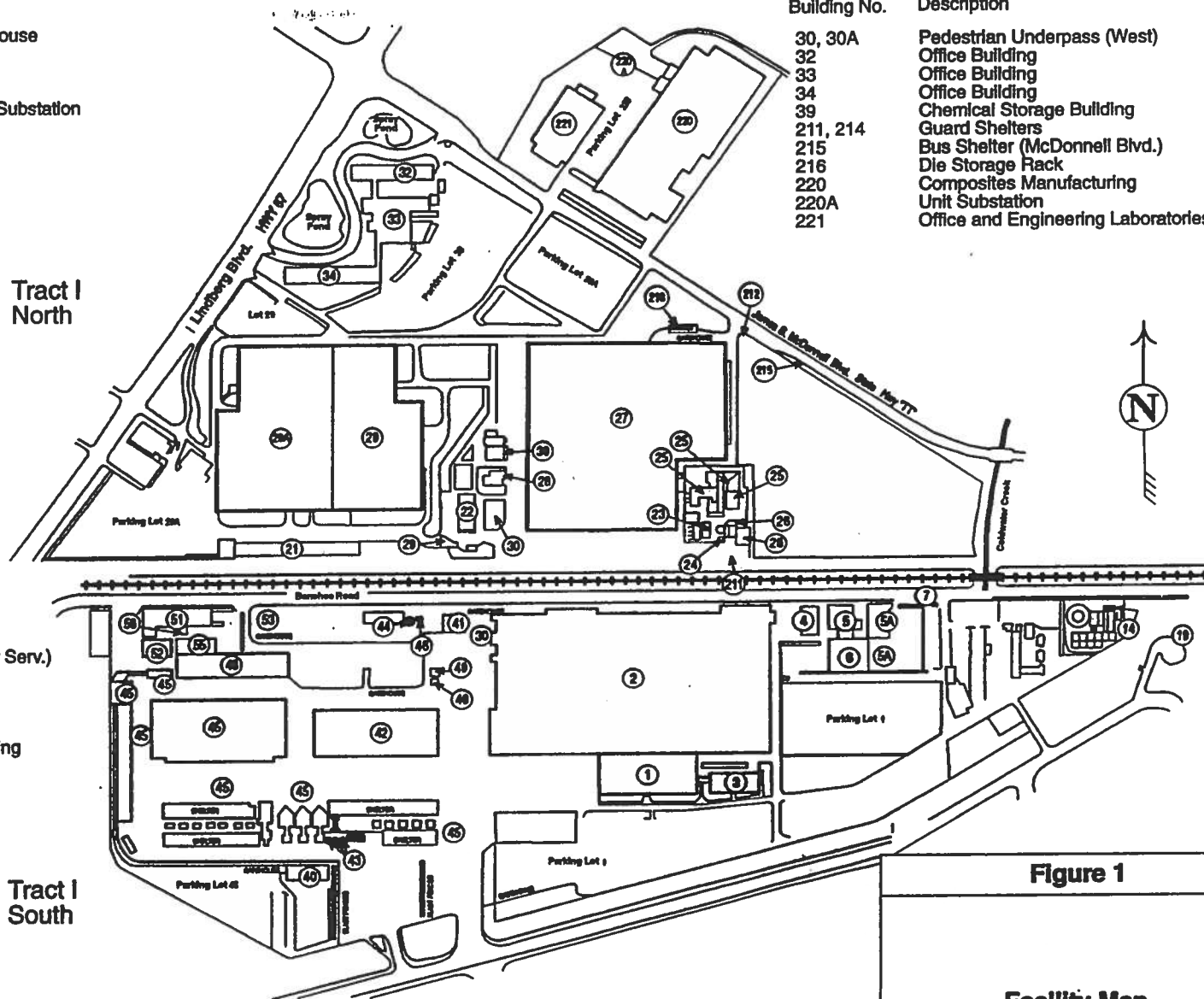
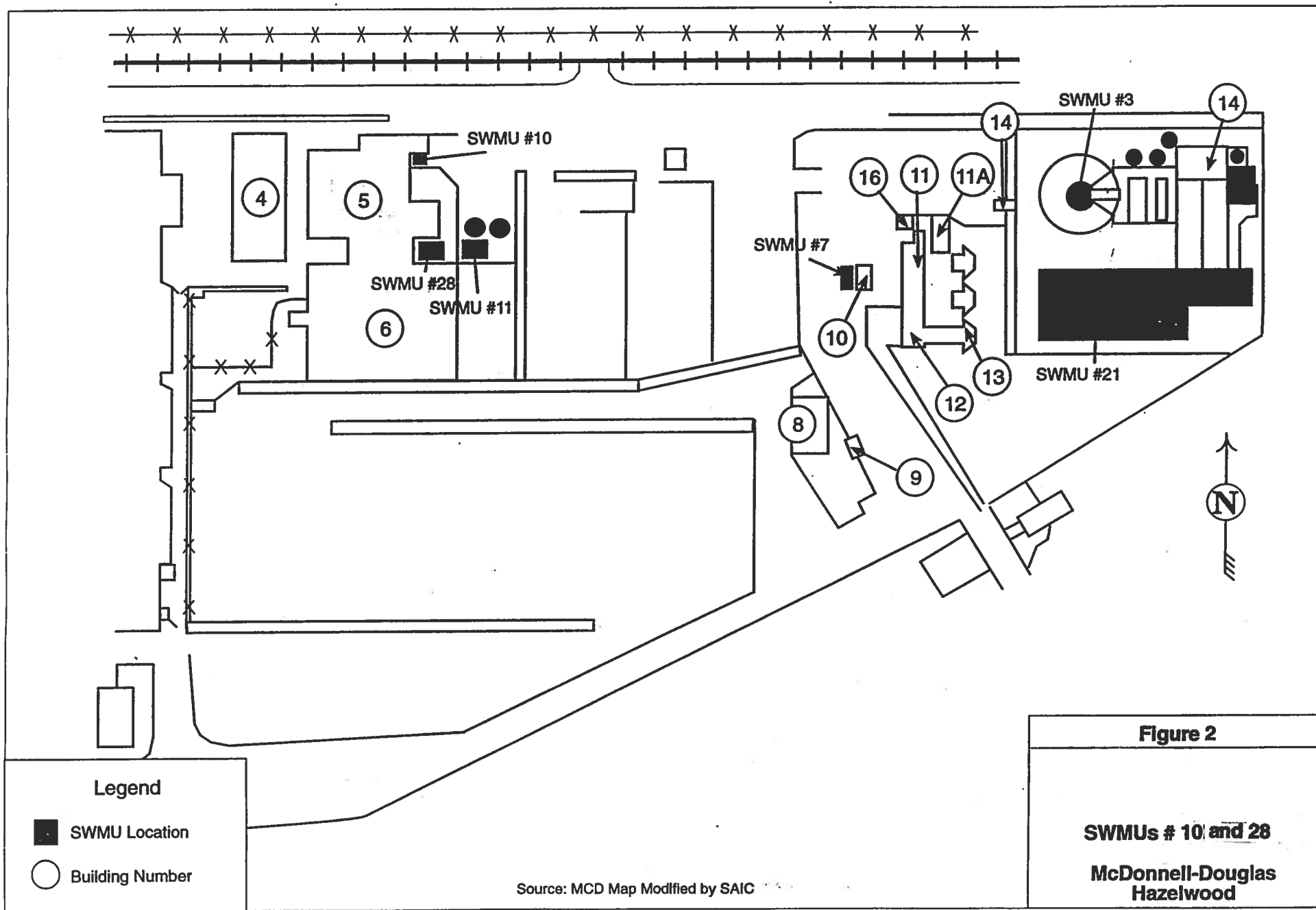
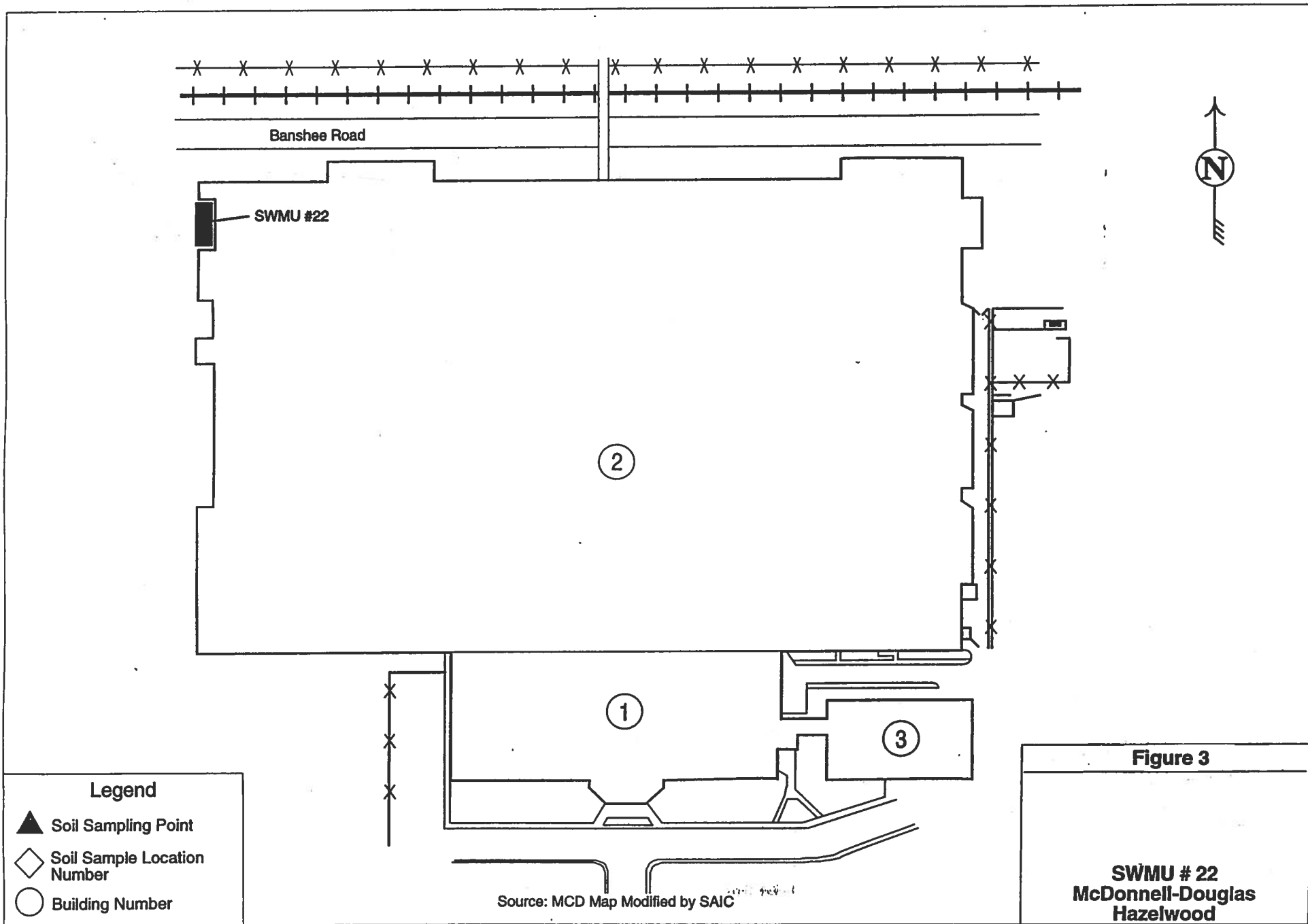


Figure 1

Facility Map
McDonnell-Douglas
Hazelwood

Source: MCD Map Modified by SAIC





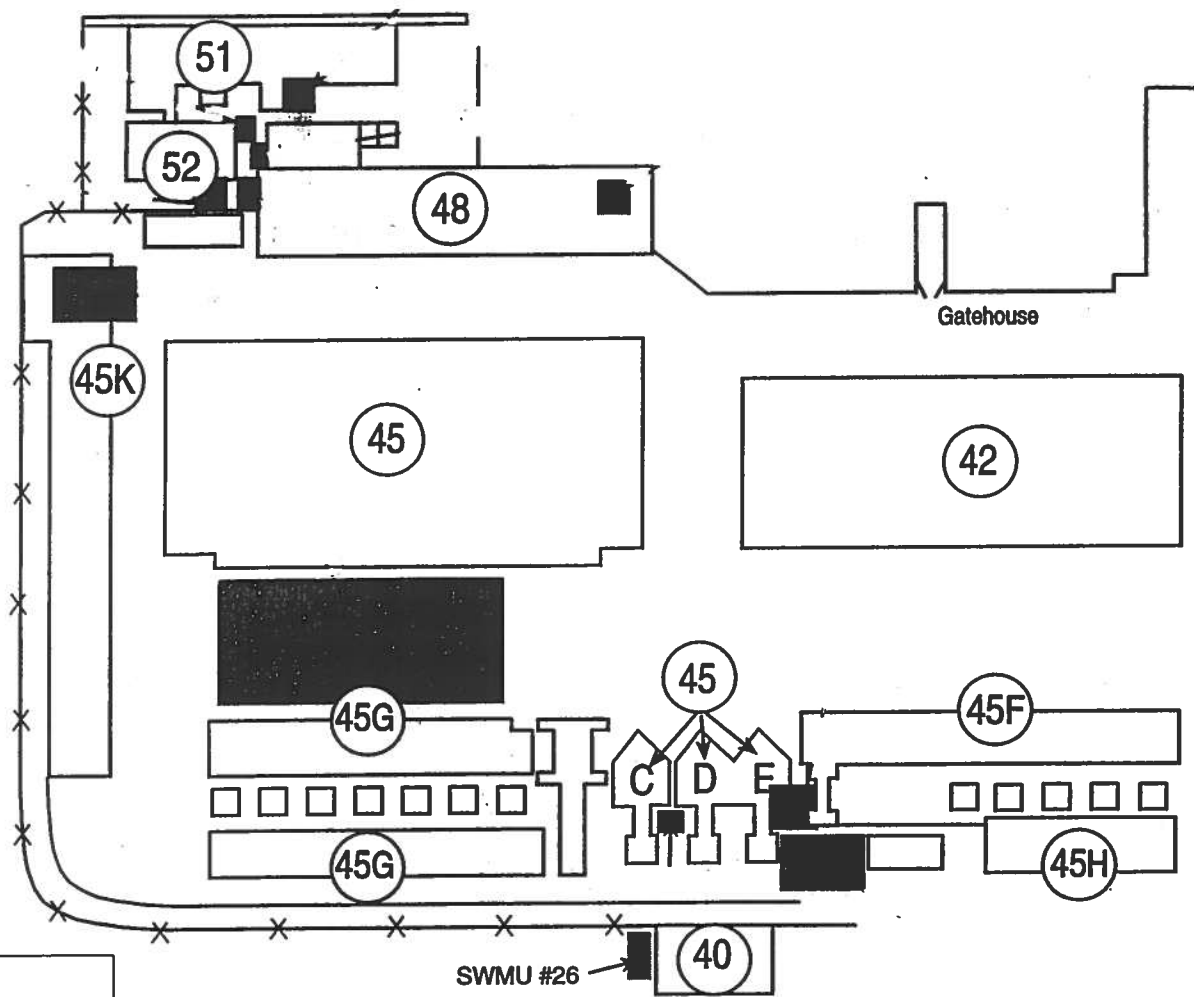


Figure 4

SWMU 26

**McDonnell-Douglas
Hazelwood**

B



APPENDIX B

CONSTRUCTION INFORMATION



Dustless Decontamination Systems

Dustless Decontamination Equipment

Pentek's integrated family of remotely and manually operated equipment is designed for dustless decontamination of concrete and steel. The Pentek system incorporates a high-performance vacuum/waste packaging unit in conjunction with pneumatically operated scabblers and needle scalers to safely remove contaminated material. The mechanical system is completely dry, reducing waste volume to just the removed contaminated material; no water, chemicals, or abrasives are required. Dust and debris are captured at the cutting tool surface, preventing cross contamination and eliminating the need for local tenting and operator respiratory protection. The Pentek decontamination system is designed for the safe removal of radioactive materials, lead-based paints, PCBs, pesticides, chemical residuals, and other contaminated coatings.

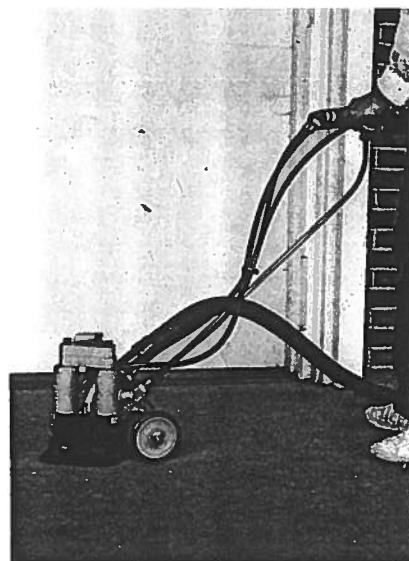
VAC-PAC® Vacuum/Waste Packaging System

The heart of the Pentek decontamination system, the VAC-PAC HEPA filtration vacuum and waste packaging unit, can simultaneously support up to three scabblers/needle scalers operating 100 feet away. The unit is portable and can easily be maneuvered on its four casters. It features self-cleaning first stage filters, eliminating the need for periodic filter changes and HEPA recertification. No moving parts assure high reliability, and extensive use of stainless steel fasteners, UHMW polymers and brass fittings minimize corrosion. The VAC-PAC design incorporates a patented fill-seal drum changeout method that allows the operator to fill, seal, remove, and replace the waste drum under controlled vacuum conditions. This assures positive control of waste and minimizes the possibility of cross contamination during drum changeout procedures. 55- and 23-gallon drums, as well as other drum sizes, can be accommodated.



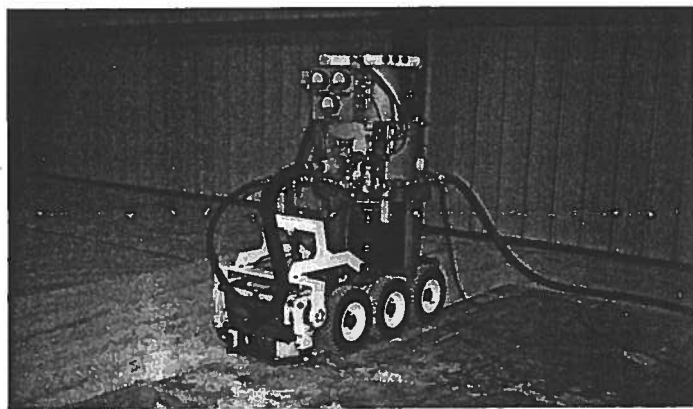
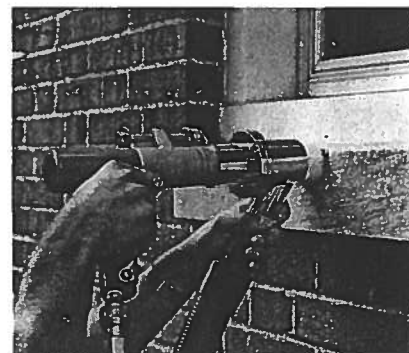
MOOSE™ and SQUIRREL® Scabblers

The MOOSE remotely operated, single-step concrete floor decontamination and surface preparation unit cuts an extra-wide 18-inch path while simultaneously collecting and packaging all dust and debris into on-board 23-gallon drums. Capable of removal rates at 400 square feet per hour, the MOOSE scabbles coatings and substrates in increments of 1/16 to 3/16 inch deep per pass. The SQUIRREL-III light-weight, manually-operated, single-step scabber is designed to access tight spaces near corners, wall/floor joints, floor penetrations, equipment pedestals, and steps. The scabbling head is less than one foot high, making it ideal for under equipment supports. Exclusive scabbling head vibration isolation technology eliminates operator fatigue. Like the MOOSE, the SQUIRREL-III features vacuum flow design to minimize cross contamination.



CORNER-CUTTER® Needle Scaler

Outside edges of walls, inside corners, and other surfaces that are inaccessible by the MOOSE and SQUIRREL-III can be decontaminated with the CORNER-CUTTER. This unique needle scaler features detachable shrouds machined to conform to specific geometric surfaces, high-strength alloy needles, pivoting vacuum head, and locking collar for overhead work. Operator fatigue is reduced by its light weight and low reaction force.



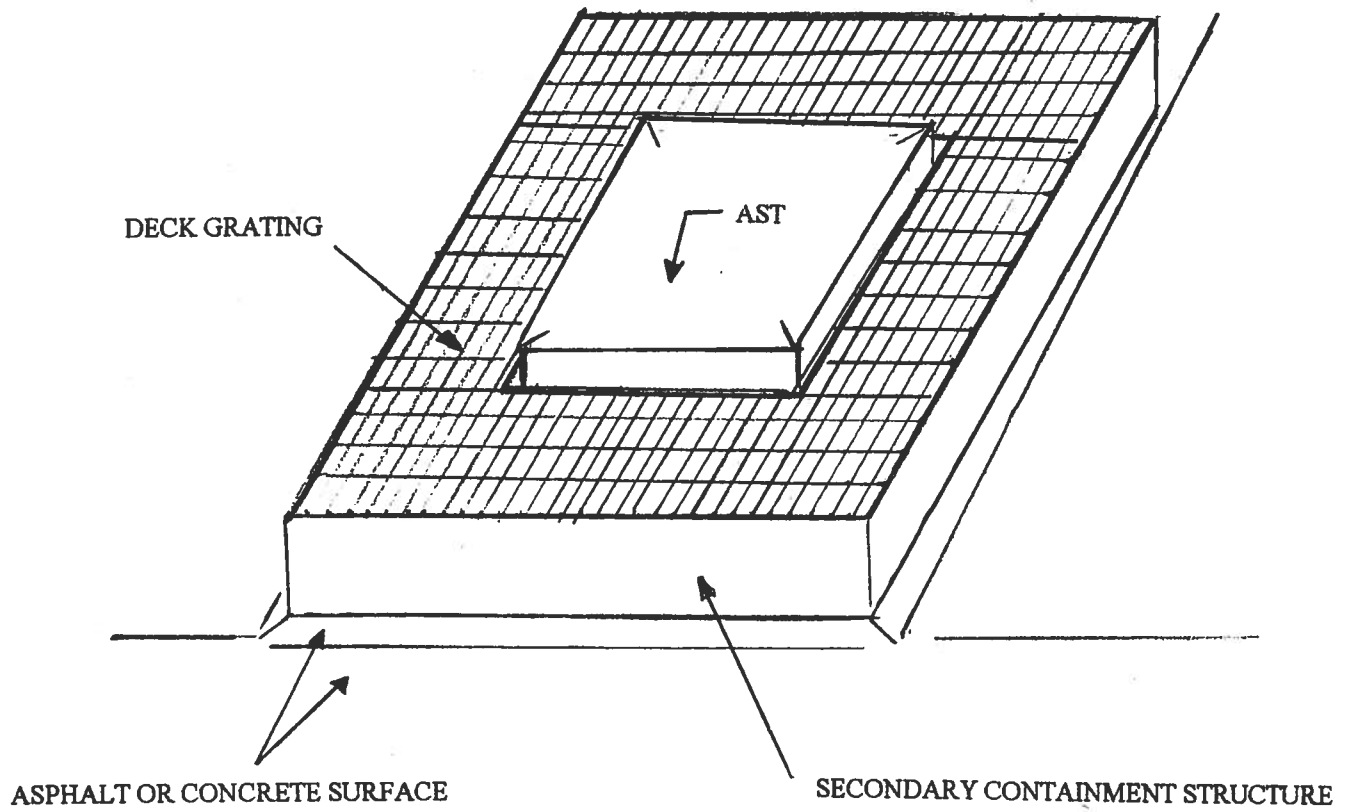
Pentek's MOOSE remotely-operated floor scabber with on-board VAC-PAC module.



Decontamination Products Division
1026 Fourth Avenue
Coraopolis, Pa. 15108
(412) 262-0725
Fax: (412) 262-0731

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TYPICAL CONSTRUCTION OF STEEL SECONDARY CONTAINMENT SYSTEMS







APPENDIX C

SCHEDULE CHARTS



McDonnell Douglas Aerospace

Interim Measures Plan Schedule
Track I Facility

ID	Task Name	Duration	Start	Finish	April																											
					S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	Submit Interim Measures Plan	2d	Wed 4/16/97	Thu 4/17/97																												
2	Agency Review of Interim Measures Plan	44d	Fri 4/18/97	Wed 6/18/97																												
3	Implement Interim Measures at SWMU's #10, #22, #26, & #28	40d	Thu 6/19/97	Wed 8/13/97																												
4	Prepare Interim Measures Report	20d	Thu 8/14/97	Wed 9/10/97																												
5	Submit Interim Measures Report to Agency	2d	Thu 9/11/97	Fri 9/12/97																												

Heritage Project No. 9482

Task

Progress

Milestone

Summary

Rolled Up Task

Rolled Up Milestone

Rolled Up Progress

McDonnell Douglas Aerospace

Interim Measures Plan Schedule
Track I Facility

ID	May																												June													
	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W										
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Heritage Project No. 9482

Task

Progress

Milestone



Summary

Rolled Up Task

Rolled Up Milestone



Rolled Up Progress

McDonnell Douglas Aerospace

Interim Measures Plan Schedule
Track I Facility

												July																											
ID	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
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Heritage Project No. 9482

Task

Progress

Milestone

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ID	August														September																	
	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
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Summary

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- 3 Implement Interim Measures at SWMU's #10, #22, #26, & #28**
Start Dates are Approximate.